

CLAIMS:

1. A film heating element, at least comprising an aluminum substrate, an electrically insulating layer which is based on a sol-gel precursor, and an electrically resistive layer with a thickness smaller than 2 µm.
- 5 2. A film heating element as claimed in claim 1, wherein the electrically resistive layer comprises an inorganic material.
3. A film heating element as claimed in claim 1 or claim 2, wherein the sol-gel precursor is a hybrid sol-gel precursor comprising an organosilane compound.
- 10 4. A heating element as claimed in claim 3, characterized in that the organosilane compound comprises methyl-trimethoxysilane or methyl-triethoxysilane.
5. A heating element as claimed in claim 1, wherein the heating element further comprises a conductive layer.
- 15 6. An electrical domestic appliance comprising at least a heating element in accordance with any one of claims 1 to 5.
- 20 7. An electrical domestic appliance according to claim 6, characterized in that the electrical domestic appliance comprises a (steam) iron, a hair dryer, a hair styler, a steamer and a steam cleaner, a garment cleaner, a heated ironing board, a facial steamer, a kettle, a pressurized boiler for system irons and cleaners, a coffee maker, a deep-fat fryer, a rice cooker, a sterilizer, a hot plate, a hot-pot, a grill, a space heater, a waffle iron, a toaster, an oven, or a water flow heater.
- 25 8. A method of manufacturing a heating element according to any one of claims 1 to 6, at least comprising the steps of: providing an aluminum substrate; applying an electrically insulating layer on said substrate; and applying a resistive layer on top of the

electrically insulating layer, characterized in that the electrically insulating layer is obtained by means of a sol-gel process and the resistive layer has a thickness smaller than 2 μm .